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SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER DOTE, JANIS L	
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			1756	

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/787,099	Applicant(s) KADOTA ET AL.	
	Examiner Janis L. Dote	Art Unit 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-5 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on May 16, 2006, has been entered.

2. The examiner acknowledges the amendments to claims 1, 3, 4, and 7 and the cancellation of claims 2 and 6 set forth in the amendment filed on May 16, 2006. Claims 1, 3-5, and 7 are pending.

3. The objection to the specification set forth in the office action mailed on Dec. 16, 2005, paragraph 4, has been withdrawn in response to the amended paragraph beginning at page 8, line 20, of the specification, set forth in the amendment filed on May 16, 2006.

The rejection of claims 1, 2, and 4-6 under 35 U.S.C. 102(e) over US 2005/0100807 A1 (Yamazaki), as evidenced by applicants' admissions I, set forth in the office action mailed on Dec. 16, 2005, paragraph 11, has been withdrawn. Applicants

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have perfected their claim to foreign priority under 35 U.S.C. 119 for the subject matter recited in instant claims 1, 4, and 5. The verified English-language translations of the priority documents Japanese Patent Applications 2003-053833 (JP'833) and 2003-053834 (JP'834), which were filed on Mar. 16, 2006, provide antecedent basis as set forth under 35 U.S.C. 112, first paragraph, for the subject matter recited in instant claim 1 and claims 4 and 5, respectively. Contrary to applicants' assertion that paragraph 0025 in the translation of JP'833 and paragraph 0027 in the translation of JP'834 provide antecedent basis for the "block polyester" recited in instant claims 1 and 4, respectively, the examiner notes that the description in paragraph 0046 in the translation of JP'833 and the description in paragraph 00048 in the translation of JP'834 provide antecedent basis for the block polyester broadly recited in instant claims 1 and 4. Paragraph 0046 in the translation of JP'833 and paragraph 0048 in the translation of JP'834 both state that the "[b]lock polyesters may have blocks other than the aforementioned crystalline blocks and amorphous blocks." Accordingly, Yamazaki is no longer prior art with respect to the subject matter recited instant claims 1, 4, and 5.

The terminal disclaimer filed on May 16, 2006, disclaiming the terminal portion of any patent granted on this application

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which would extend beyond the expiration date of US application Serial No. 10/787,147 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Accordingly, the rejections of under the judicially created doctrine of obviousness-type double patenting of claims 1, 2, and 4-6 over claims 1-8 of copending Application No. 10/787,147 (Application'147), set forth in the office action mailed on Dec. 16, 2005, paragraphs 12 and 13, have been withdrawn.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3 and 7 are indefinite in the term "[a]n image forming system" because it is not clear what is meant by the term, which is not defined in the originally filed specification. Nor is there any disclosure in the specification

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that a person having ordinary skill in the electrophotographic arts would readily understand what the term meant.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 3 and 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Instant claims 3 and 7 recite an "image forming system comprising an image-forming apparatus; and a toner" (emphasis added).

The originally filed specification does not provide an adequate written description of such a system. The originally filed specification provides a description of image-forming apparatuses recited in instant claims 3 and 7, wherein those

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apparatuses use the particular toners recited in instant claims 3 and 7, respectively. See, for example, the originally filed specification, page 6, line 12, to page 8, line 16. The originally filed specification states that the image forming apparatus "comprises at least: an image carrier . . . a developing unit . . . a transferring unit . . . and a fixing unit." There is no description of "an image forming system" as recited in the instant claims. The claim language "image forming system comprising . . ." encompasses more than the originally described image forming apparatuses and the particular toners because it is open and therefore encompasses other non-described components, such as a box of paper or a human operator.

8. Applicant's arguments filed on May 16, 2006, applicable to the 112 rejections set forth in paragraphs 5 and 7 above have been fully considered but they are not persuasive.

Applicants assert that the "term 'image forming system' is not new matter since it merely renames the invention as a system comprising an image forming apparatus and toner . . . and since the term 'system,' which is defined as a group of interrelated, interactive or interdependent constitutes forming a complete whole or a functionally related group of elements . . . is to be

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given its plain and ordinary meaning as would be understood by those of ordinary skill in the art."

Applicants' assertion is not persuasive. For the reasons discussed in paragraph 7 above, the claim language "image forming system comprising . . ." is open and encompasses more than the originally described image forming apparatuses and the particular toners. In other words, the claim language is broader than the originally described image forming apparatus and toners. Thus, it is not merely a renaming of the originally described image forming apparatus and toners, as asserted by applicants.

In addition, as discussed in paragraph 5 above, the originally filed specification does not provide any disclosure that would have led a person having ordinary skill in the electrographic art to readily determine what is meant by the term "image forming system." Furthermore, applicants have not provided a copy of their source for their definition of the term "system." Moreover, for the reasons discussed above, the term "image-forming system" is not merely a renaming of the originally disclosed image forming apparatuses and toners; it is broader than the combination of the two described components.

To overcome the rejections, the examiner suggests that applicants amend claims 3 and 7 such that the claim language

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reads "An image forming apparatus comprising . . . a developing unit containing a toner, wherein the developing unit develops the electrostatic latent image on the image carrier to form a toner image by the toner . . . and the toner is the toner according to claim . . . " (emphasis added). The suggested claim language provides a positive recitation that the toner is part of the image forming apparatus and the structural relationship between the toner and the apparatus; and is fully supported by the original disclosure.

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1, 4, and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 02/084408 A1 (Matsumura), as evidenced by applicants' admissions at page 5, lines 2-9 and 14-19, page 44, lines 18-25, page 76, lines 1-12, page 77, lines 1-5, 7-9, 11-14, 16-17, and 20-22, page 88, lines 1-12, page 88, line 25, to page 89, line 12, and page 90, lines 5-6, 12-13, and 20-21, of the originally filed specification; and Tables 1A and 1B at pages 75 and 87, respectively, of the originally filed specification (applicants' admission I).

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US 2004/0132920 A1 (US'920), filed under 35 U.S.C. 371, is the national stage of the WO application of Matsumura, and therefore is presumed to be an accurate English-language translation of the WO application of Matsumura. 35 USC 371(c)(2), 372(b), and 365(c). See US'920, the translation of Matsumura, for cites.

Matsumura discloses a toner comprising 100 parts by weight of toner particles comprising a polyester binder resin and a colorant. The polyester binder resin comprises two components: (1a) 15 parts by weight of a block polyester copolymer; and (2a) 85 parts by weight of a non-crystalline, i.e., amorphous polyester resin. US'920, paragraphs 0309-0310, and example 19 at paragraphs 0311 and in Table 7 at page 28. The polyester binder resin meets the binder resin limitations recited in instant claims 1 and 4. Matsumura discloses that the binder resin is colorless and transparent. Table 7, example 19. According to Matsumura, when the block polyester copolymer (1a) and the non-crystalline polyester resin (2a) are compatible, the resultant binder resin is colorless. US'920, paragraph 0139. Matsumura further discloses a fixing device which fixes an unfixed toner image on a recording medium where the toner image is formed from the toner in example 19 of Matsumura. US'920, paragraphs 0284-0285 and Table 7, example 19.

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The Matsumura toner in example 19 does not comprise a release agent. However, according to the originally filed specification at page 44, lines 18-25, "[t]he binder resin which is used in the toner of the present invention is excellent in heat melt characteristics according to the molecular weight range, and a release agent is not necessary according to the viscoelastic characteristics in the fixing temperature range, but when a release agent is used, the amount is 4 parts by weight . . . or less per 100 parts by weight of the binder resin, and preferably from 0 to 3 parts by weight" (emphasis added). Thus, it appears that the release agent is an optional toner component. Accordingly, when given the broadest and reasonable interpretation consistent with the disclosure in the originally filed specification, a fair reading of the amount of "4 parts by weight or less per 100 parts by weight of the binder resin" in the recitation, "the toner contains a release agent in an amount of 4 parts by weight or less than 100 parts by weight of the binder resin," would encompass amounts from 4 to 0 parts by weight of release agent. Therefore, the Matsumura toner meets the toner compositional limitations recited in instant claims 1, 4, and 5.

Matsumura does not disclose that the toner has the storage modulus properties recited in instant claims 1, 4, and 5.

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However, Matsumura discloses that the toner exhibits a low temperature fixability of 115°C, and a region of no offset between 105 to greater than 210°C, i.e., a minimum non-offset temperature of 105°C. Table 7, example 19. These properties appear to be the same properties sought by applicants.

The originally filed specification at page 5, lines 2-9, discloses that an "object of a first aspect of the present invention . . . is to provide a toner which can effectively improve low temperature fixing stability and offset resistance of a toner by using dynamic viscoelastic characteristics more conformable for actual toner behavior in fixation by heating." The originally filed specification at page 5, lines 14-19, discloses that another "object [of] a second aspect of the present invention . . . is to provide a toner which can effectively improve fixing stability and offset resistance to a toner by using dynamic viscoelastic characteristics more conformable to actual toner behavior in fixation by heating."

The originally filed specification shows that in an oil-less fixing device, some toners that meet the storage modulus properties recited in instant claim 1 exhibited a low temperature offset and a "minimum temperature of good fixing rate" of 160°C or less; while other toners that meet the storage modulus properties recited in instant claim 1 exhibited a low

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temperature offset and a "minimum temperature of good fixing rate" of "higher than 160°C and lower than 180°C." See Table 1A at page 75 of the originally filed specification, examples 1A through 3A and 6A; the originally filed specification, page 76, lines 1-12; and page 77, lines 1-5, 11-14, and 20-22.

Toners that do not possess the storage modulus properties recited in instant claim 1 exhibited a low temperature offset and a "minimum temperature of good fixing rate" of 180°C or higher. See Table 1A, examples 5A and 7A; and page 76, lines 1-12; and page 77, lines 7-9 and 16-17.

The originally filed specification also shows that some toners that meet the storage modulus limitations recited in instant claims 4 and 5 exhibited a hot offset temperature of 200°C or higher and a "minimum temperature of good fixing rate" of 160°C or less; while other toners that meet the storage modulus limitations recited in instant claims 4 and 5 exhibited a hot offset temperature of "higher than 180°C and lower than 200°C" and a "minimum temperature of good fixing rate" of 160°C or less. See Table 1B at page 87 of the originally filed specification, examples 2B and 3B; page 88, lines 1-12; page 88, line 25, to page 89, line 2; and page 89, lines 7-10, and 16-18.

A toner that does not possess the storage modulus limitations recited in instant claims 4 and 5 exhibited a hot

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offset temperature of 200°C or higher and a "minimum temperature of good fixing rate" of 180°C or higher. See Table 1B at page 87, example 5B; and page 89, lines 1-12; page 90, lines 5-6, 12-13, and 20-21.

Thus, because the Matsumura toner meets the toner compositional limitations recited in the instant claims and because the Matsumura toner appears to provide the same properties sought by applicants, it is reasonable to presume that the Matsumura toner has the storage modulus properties recited in instant claims 1, 4, and 5. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

11. Claims 3/(1) and 7/(4,5) are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,748,192 B2 (Izawa) combined with Matsumura, as evidenced by applicants' admission I.

US'920, filed under 35 U.S.C. 371, is the national stage of the WO application of Matsumura, and therefore is presumed to be an accurate English-language translation of the WO application of Matsumura. 35 USC 371(c)(2), 372(b), and 365(c). See US'920, the translation of Matsumura, for cites.

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Izawa discloses an electrophotographic image forming apparatus that meets the structural components recited in instant claims 3 and 7, but for the particular toner. The apparatus shown in Fig. 1 comprises a photosensitive drum **1**, i.e., an image carrier on which an electrostatic latent image is formed, a charging roller **2**, an exposure unit **3**, a developing unit **4** that comprises a toner, a transfer device **5**, and a heat-pressure fixing unit **6**. The heat-pressure fixing unit **6** comprises a heating roller **10** and a pressure roller **20**, which fixes a toner image to a recording medium. According to Izawa, the fixing unit is effective for oilless fixing. Figs. 1 and 2; col. 6, line 28, to col. 7, line 10; and col. 17, lines 57-58.

Izawa does not exemplify the particular toners recited in the instant claims. However, Izawa does not limit the type of toner used.

Matsumura discloses a toner as described in paragraph 10 above, which is incorporated herein by reference. The Matsumura toner meets the toner compositional limitations and the storage modulus properties recited in instant claims 3/(1) and 7/(4,5). According to Matsumura, the toner exhibits excellent low-temperature fixation performance, high-temperature offset-resistance and anti-blocking performance. The toner also provides satisfactory color development. Paragraph 0016 and

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Table 7, example 19.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Matsumura, to use the toner disclosed by Matsumura as the toner in the developing unit of the image forming apparatus disclosed by Izawa. That person would have had a reasonable expectation of successfully obtaining an electrophotographic image forming apparatus that is capable of forming toner images that have the properties disclosed by Matsumura.

12. Applicant's arguments filed on May 16, 2006, applicable to the rejections over Matsumura set forth in paragraphs 10 and 11 above have been fully considered but they are not persuasive.

Applicants assert that claims 1 and 4 now include the limitations of now-cancelled claims 2 and 6, respectively, that were not rejected over Matsumura in the prior office action.

However, for the reasons discussed in paragraph 10, the paragraph bridging pages 9 and 10, above, the broadest and reasonable reading of the release agent "amount of 4 parts by weight or less per 100 parts by weight of the binder resin" includes zero parts by weight of the release agent. Thus, the Matsumura toner meets the toner compositional limitations

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recited in instant claims 1, 4, and 5. Accordingly, the rejections over Matsumura stand.

13. Claims 3/1 and 7/(4,5) are rejected under 35 U.S.C. 102(e) as being anticipated by US 2005/0100807 A1 (Yamazaki), as evidenced by applicants' admissions I.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Yamazaki discloses a toner comprising 100 parts by weight of a polyester binder resin, a colorant, and 2 parts by weight of carnauba wax, i.e., a release agent. See paragraphs 0383-0398; and example 11 at paragraph 0411 and in Table 1 at page 31. The polyester binder resin comprises two components: 15 parts by weight of polyester block copolymer B'; and 85 parts by weight of amorphous polyester resin A. The amount of carnauba wax is within the releasing agent amount

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recited in instant claims 3 and 7. The polyester binder resin meets the polyester binder resin limitations recited in instant claims 3 and 7. Yamazaki further discloses an image-forming apparatus that comprises a photosensitive drum **30**, i.e., an image carrier on which an electrostatic latent image is formed, a charging device **40**, an exposure device **50**, developing units **60Y**, **60C**, **60M**, and **60K**, intermediate transfer device **70**, and a fixing unit **190**. The fixing device comprises a fixing roller **210** and a pressing roller **220**. Fig. 5, paragraphs 0307-0319. Yamazaki further discloses that the fixing unit comprises releasing members **310** and **320** for the fixing roller and the pressing roller. The releasing members comprise a resin sheet or a metal sheet, where the releasing member for the fixing roller is coated with a fluorocarbon resin. Figs. 7 and 8, and paragraphs 0324-0327

Yamazaki does not explicitly disclose that the two rollers in the fixing unit are "oil-less" as recited in instant claims 3 and 7. However, Yamazaki does not disclose that a release oil is applied to the fixing rollers. Nor does Yamazaki disclose that the fixing unit comprises a release oil applicator. Thus, it is reasonable to conclude that the Yamazaki fixing roller and the pressing roller are "oil-less" as recited in the instant claims. The burden is on applicants to prove otherwise.

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Fitzgerald, supra. Accordingly, the structural components in the Yamazaki apparatus meet the structural components recited in instant claims 3 and 7.

Yamazaki does not disclose that the toner has the storage modulus properties recited in instant claims 3 and 7/(4,5). However, Yamazaki discloses that in its fixing device, the toner exhibits good fixability for a temperature range of 120-210°C with no occurrence of offset. Yamazaki, paragraph 0437 and Table 3, example 11. These properties appear to be the same properties sought by applicants.

The originally filed specification at page 5, lines 2-9, discloses that an "object of a first aspect of the present invention . . . is to provide a toner which can effectively improve low temperature fixing stability and offset resistance of a toner by using dynamic viscoelastic characteristics more conformable for actual toner behavior in fixation by heating." The originally filed specification at page 5, lines 14-19, discloses that another "object [of] a second aspect of the present invention . . . is to provide a toner which can effectively improve fixing stability and offset resistance to a toner by using dynamic viscoelastic characteristics more conformable to actual toner behavior in fixation by heating."

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The discussion of applicants' admissions in paragraph 10 above is incorporated herein by reference.

Thus, because the Yamazaki toner in example 11 of Yamazaki meets the toner compositional limitations recited in the instant claims and because the Yamazaki toner appears to provide the same properties sought by applicants, it is reasonable to presume that the Yamazaki toner in example 11 of Yamazaki has the storage modulus properties recited in instant claims 3 and 7/(4,5). The burden is on applicants to prove otherwise. Fitzgerald, supra.

Applicants' arguments filed on May 16, 2006, have been fully considered but they are not persuasive.

Applicants assert that Yamazaki is not prior art to the subject matter recited in instant claims 3 and 7 because they have perfected their claim to foreign priority under 35 U.S.C. 119 for the subject matter recited in instant claims 3 and 7. Applicants assert that the verified English-language translations of the priority documents Japanese Patent Applications 2003-053833 (JP'833) and 2003-053834 (JP'834), which were filed on Mar. 16, 2006, provide antecedent basis as set forth under 35 U.S.C. 112, first paragraph, for the subject matter recited in instant claims 3 and 7.

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However, for the reasons discussed in paragraph 7 above regarding the lack of adequate written description for the "image forming system" recited in instant claims 3 and 7 in the originally filed specification, the verified translations of the JP'833 and JP'824 do not provide an adequate description of the "image forming system" recited in instant claims 3 and 7. Accordingly, applicants have not perfected their claim to foreign priority for the subject matter recited in instant claims 3 and 7. Yamazaki remains as prior art with respect to the subject matter recited in instant claims 3 and 7. The rejection of claims 3 and 7 over Yamazaki above stands.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Mr. Nam Nguyen, can be reached on (571) 272-1342. The central fax phone number is (571) 273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Jun. 20, 2006

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GROUP 1756
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